

Nature Journal

Refuge-Led Activity



Rhythms Topic and Message	Wildlife: A diversity of wetland habitats supports a diversity of interconnected and ecologically valuable wildlife species.
Rhythms Objective Supported	Describe the components and functions of a given habitat by observing, counting, and describing the animals and plants in that habitat. (Habitat & Wildlife)
Method	Students will sit quietly in an area, making observations and inferences that connect to their learning. They will record these observations and inferences as an introduction to keeping a nature journal.
Performance Objectives	After completing this activity, students will be able to... <ul style="list-style-type: none"> Record their observations and experiences at the Refuge Share their experiences with other students in their group
Materials	Copies of the Student Page "Nature Journal Ideas" Clipboards or student notebooks Paper and pencil Optional: markers, colored pencils, crayons Optional: field guides Optional: binoculars Carpet squares Sample journals Magnifying lenses
Subjects	Science, Math, Art, Language Arts, Social Studies (Depends on student's chosen activity)
WI Model Academic Standards	Math (17), Language Arts (9), Science (8), Environmental Education (5), Social Studies (4)
Time	1 hour
Seasons	Spring, Summer, Fall
Setting	Horicon National Wildlife Refuge, visitor center or other locations free of wild parsnip
Grade Range	K-12
Group Size	One classroom
Skills	Reflection, writing, drawing, reading, observation, mapping, poetry
Vocabulary	Observation, inference, journal, diary
Jr. Duck	Directly supports Jr. Duck especially if that theme is applied to this lesson.

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Background Information

Through the ages, scientists, authors, poets, explorers (such as Louis and Clark), and many others have kept journals to record their observations and experiences. As learning tools, journals can serve a broad spectrum of purposes. Some journals contain objective information on things such as scientific experiments, weather, wildlife behavior, and seasonal changes. Some journals are entirely personal. A journal can include both personal expressions and objective observations. Keeping a nature journal can be a powerful experience because it helps the observers slow down, carefully take note of their surroundings, make first-hand observations of nature, and become better observers. A diary may include personal feelings and opinions, but a journal is typically objective.

Journals can be started using a few simple tools: several sheets of loose leaf paper, a hard writing surface, and a writing utensil. Some basic information that is often included in a nature journal includes date, time, place, and weather (temperature, wind speed and direction, description of the clouds, etc.). Still, there does not need to be a set format as to how this information is recorded in a nature journal; the writer can develop their own style.

After recording some basic information about the area, a student can choose something more specific to study. While in the field, students should be encouraged to record information without using field guides or other textbooks because this encourages them to improve their own observation skills. Back in the classroom, students can refer to their journal entries to research and find more information about what they observed.

Beyond its value as a learning tool, keeping a journal also allows time for reflection and relaxation. Rather than rushing through an area, students have personal time in a natural area. This can help students feel more connected to the land.

After students have completed their journal entries, providing an opportunity to share their observations with others in their group can further increase learning. Sharing provides students with the opportunity to show what they saw and learned. It can help students see the diversity of observations that can be made in nature. It can also help them draw connections in their learning.

Refuge-Led Procedure

1. To begin, discuss the difference between observations and inferences. An observation is the act of noting and recording something, while inference is the act of deriving a conclusion from facts or premises. Then, have the students work with a partner on the observation versus inference section of the journaling handout.

2. After completing the observation versus inference section, ask students what is the difference between a journal and a diary? What is a nature journal? Why should one keep a nature journal? (helps you slow down, feel more connected to land, observe first hand, reflect/relax, use as springboard for formal writing to share with others) Show them a few examples of nature journals which people can commonly purchase from bookstores.
3. Give them 15-20 minutes to sit quietly by themselves to observe their surroundings. You may want to give them boundaries of where to go, but also give them adequate space to spread out from one another. In spring and summer, stay on the trail but in fall you could step into tall grasses since bird nesting is over, especially at the Bud Cook Hiking Area. Provide carpet squares to sit upon. Provide magnifying lenses and binoculars if desired. During this time, they can write/draw about any one of the journaling ideas or come up with an activity of their own. (Note: to help students prepare for this kind of freedom on the refuge, you may want to do a “practice run” on the school grounds.) For younger students who need help reading, conduct this step in small groups with an adult helper.
4. Bring the group back together. Have the students sit in a circle on the ground. Allow students to share their experiences as they are comfortable. If each student is asked to share only one entry that they put in their journal, they can choose the one with which they are comfortable. Note the diversity of observations made. Ask if any of the students keep their own journal at home? Show or describe examples of journals kept by Refuge employees for tracking wildlife observations or of visitors’ stories from the quilt exhibit. This will help those students who keep journals feel validated and gives authentic examples from the marsh. Refuge examples include whooping crane tracking, law enforcement daily activity report, day planners, and phenology logs.

Teacher-Led Extensions/Adaptations/Assessment Ideas

- Have students repeat this activity at a location near their home (or in their home) How does the location influence their discoveries and reactions?
- Continue this activity over a whole week, month, semester, or year as homework.
- Use student journals as a writing resource to create short stories, poems, satire, or other forms of writing. See the poem Horicon Marsh below written during a Nature Journal experience.
- Find examples of journals in your school library. Read the *Diary of Anne Frank* to give students an example of a famous diary (versus a journal).
- Listen to Hope and Soaring on the *Songs of the System* music cd.

Wisconsin Model Academic Standards

This lesson supports the following state standards...

Math A.4.1-A.4.3, B.4.1-B.4.3, B.4.5, D.4.1, D.4.5, E.4.1, E.4.2, A.8.1, B.8.5,

B.8.7, D.8.4

Science C.4.1, C.4.2, C.4.6, A.8.4, C.8.4, C.8.10, C.12.3, C.12.6

Language Arts B.4.1, C.4.1, C.4.2, B.8.1, C.8.1, C.8.3, B.12.1, C.12.1, C.12.3

Environmental Education A.4.1, A.4.2, A.4.4, A.8.2, A.8.6

Social Studies A.4.1, A.4.2, A.8.2, A.12.1

Resource

Songs of the System music compact disc, Friends of Forsythe National Wildlife Refuge,
<http://www.friendsofforsythe.org>



Nature Journal

Name: _____



Observation and Inference – Define each term in your own words:

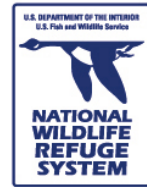
Observation: _____

Inference: _____

Work with your partner to fill in and find a match for as many of the blanks as you can in 15-20 minutes. Each observation correlates to the inference with the same number. In other words, observation #1 must match inference #1.

Observation	Inference
1. _____ is black.	1.
2. There is a hole in _____	2.
3. I smell _____	3.
5. _____ is moving.	5.
6. I hear _____	6.
7. There is dirt _____	7.
8.	8. _____ is hungry.
9. _____ is talking to _____	9.
12. The leaves feel _____	12.
14.	14. Small birds live around here.

Nature Journal Ideas



Date: _____

Weather: _____

Time: _____

Location: _____

Select one or more of these to try.

1. Use all of your senses to describe your habitat in words and pictures to someone who has never been to this place before.
2. Make a pencil rubbing of some objects in your plot (leaves, bark, seeds, etc.). Find as many textures as you can.
3. Draw or describe the life cycle of something in your habitat (tree, rock, soil, bird, beetle...)
4. Draw a picture of your plot from several perspectives. What would it look like if you were a bird flying over? What would a mole notice (underground)? How would it look to an ant? Think of other perspectives, too.
5. Make a scale map of your plot, including as many living and non-living things as you can.
6. Find as many living organisms or signs of living things as you can. Describe or sketch each insect, plant, bird, or other animal you see.
7. Look for signs of wildlife such as droppings, marks on trees, nests, holes in the ground, etc. Describe or sketch these wildlife signs. Make an educated guess about what animal made that sign.
8. Write a poem in the shape of something in your habitat (like a tree, rock, stream...) or just write a poem.
9. Write a short story or children's story from the point of view of some animal or plant. Write about what it might be like to live in this habitat. Include some problems to be solved, develop your characters using real behaviors of those animals, and include descriptions within the story of things you notice in your habitat.
10. Come up with an idea of your own!

Horicon Marsh

Hidden in the reeds
We sketch and write
See the seeds
Fly away like a kite.

Am I sitting in the home
Of a beaver, a duck or a mole?
Or is it just another hole?
I hope I didn't squash some froggie's kitchen,
Or disturb a celebration of two insects hitchin'.

Cause all I want is some peace and quiet,
Time to enjoy this space,
That's better than the Hilton or the Hyatt.
It reminds me to honor and conserve
This federal wildlife Preserve.

With wonderful students along,
On this beautiful day,
We ponder nature and its splendors,
Learning our role as earth's great tenders.

*Andrea Utrie, Teacher
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October 13, 2004 field trip using Nature Journal lesson*